

ABSTRACT

Novel positive-working photoresist compositions are disclosed. The monomers of the base resin of the resist contain diamondoid-containing pendant groups higher than adamantane in the polymantane series; for example, diamantane, triamantane, tetramantane, pentamantane, hexamantane, etc. The diamondoid-containing pendant group may have hydrophilic-enhancing substituents such as a hydroxyl group, and may contain a lactone group. Advantages of the present compositions include enhanced resolution, sensitivity, and adhesion to the substrate.